1 The Ancient Maya of Mexico

Reinterpreting the Past of the Northern Maya Lowlands

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The three modern Mexican states of Campeche, Yucatan, and Quintana Roo compose roughly half of the Maya area. The northern Maya lowlands, whose southern boundary runs east–west through south central Quintana Roo and Campeche at approximately 19 degrees north latitude, is—with the exception of the Puuc hills—a generally flat plain characterized by low scrub forest, moderate to low rainfall, little surface water, a subtropical climate, and many of the most spectacular cities ever built in the New World. For this reason, the archaeological sites of the Yucatan peninsula, including Chichen Itza, Tulum, Uxmal, and Coba, are among the most visited anywhere in the Americas.

The northern lowlands have long been the focus of Mexican archaeologists studying the Maya. Most of the projects of the past 30 years have been directed by investigators at the Instituto Nacional de Antropología e Historia (INAH) center in Merida, or by investigators at newer INAH centers in Campeche and Chetumal. Other important projects have been conducted by faculty and students at Mexican universities, by foreign scholars, and, recently, by a small group of independent Mexican archaeologists (see Bey 2006:14-15 for a partial publication list of many of these projects). Results of archaeological research in the northern Maya lowlands are regularly presented at meetings held in Mexico, Guatemala, the United States, and Europe. Publications concerning the archaeology, epigraphy, and art history of the region appear with growing frequency not only in Spanish and English, but also in German and French. Despite this, outside of Mexico the ancient past of the northern Maya lowlands remains less known and captures the eye of the public less frequently than does that of the tropical rainforests of the southern and central lowlands of Guatemala, Belize, Honduras, and Chiapas, Mexico. Major textbooks and popular works published in English tend either to omit the northern lowlands (Demarest 2004) or to concentrate coverage on the Terminal Classic to Postclassic periods (e.g., Coe 2011; Schele and Freidel 1990; Schele and Mathews 1999; Sharer with Traxler 2006). George Bey (2006:16) quips that "[u]nfortunately, many authors think that it is not until the Terminal Classic period that the north is worth examining."

Long considered to be a passive periphery by many who do not work in the area, the northern Maya lowlands has been depicted as a region where: (1) political and economic

complexity began quite late and was derived from elsewhere; (2) the culture was largely illiterate and did not produce important works of art or architecture before about A.D. 800; (3) the pottery is dull and uninteresting compared to the vivid polychromes of the south; and (4) after a relatively brief but magnificent florescence, society slipped backwards into "decadence" and the region again became a passive backwater. Insofar as the northern lowlands experienced cultural elaboration, it was generally thought to have been the result of interaction first with the Maya of Guatemalan lowlands and with the Teotihuacanos of central Mexico, and later with the Toltecs and Aztecs.

Aims of the Ancient Maya of Mexico: Reinterpreting the Past of the Northern Maya Lowlands

The past 20 years have seen a revolution in our interpretations of social and political process in the northern Maya lowlands, but the great advances made by archaeologists to our understanding of this half of the Maya area are still under-represented in both scholarly and popular Anglophone literature (cf. Kowalski and Kristan-Graham 2007; Mathews and Morrison 2006; Shaw and Mathews 2005). One goal of this volume, therefore, is to present the results of new and important archaeological, epigraphic, and art historical research in the Mexican states of Yucatan, Campeche, and Quintana Roo. Except for this introduction and a broadly synthetic concluding essay that reviews what we have learned and seeks to define new goals and directions for the future of archaeology in the northern lowlands (Chapter 14), this volume presents original research. The organization of the volume is chronological (from the Middle Preclassic to colonial and modern periods), so that readers will understand how new data and interpretations have changed the whole of our understanding of Maya history.

A second goal of this volume is to pay tribute to E. Wyllys Andrews V, who has been in the vanguard of northern lowland archaeology for forty years. Earlier versions of many of our chapters were presented at the first of two sessions held in Will's honor at the 75th Annual Meeting of the Society for American Archaeology in Saint Louis, Missouri. The hundreds of people present at both sessions—as well as at a party held in his honor—testify to Will's continuing contributions to the archaeology of the northern Maya lowlands. His special roles as teacher, mentor, colleague, and friend during his many years as Director of the Middle American Research Institute at Tulane University have been formative and inspirational, and mean a great deal to us all.

The New Paradigm

In a recent essay, Fernando Robles Castellanos (n.d.) has summarized what he calls the "new paradigm" regarding recent developments in our understanding of the Middle Preclassic period in northwest Yucatan. That work—to which Robles, Anthony Andrews, Tomás Gallareta Negrón, and scholars working at INAH (Chapter 3), Tulane University (Chapter 2), and other institutions have made great contributions—builds on research directed by Will Andrews at Komchen. For me, the many important changes to our general view of the prehistory of the northern lowlands that have emerged and coalesced during the past two decades can also be called a new paradigm, albeit in a metaphorical rather than literal sense. Using this phrase particularly acknowledges the role that these scholars and their many colleagues in Merida and beyond have played in forming this new perspective. Nonetheless, any historical summary is

subject to bias, and my choice here is to draw attention to and emphasize the importance of contributions made by Will Andrews to our new and evolving perspective.

Rather than summarize each chapter in this volume, I hope to show how they are embedded within this new paradigm. Will's impact has been felt most strongly in discussions of the origins of Preclassic society and the transition from the Classic to the Postclassic period, that is, to questions concerning the rise and fall of hierarchy and complexity. These are themes that he has also pursued in his work at Quelepa, El Salvador (Andrews 1976), and at Copan, Honduras (Andrews and Fash 1992; Fash et al. 2004). In the northern Maya lowlands, however, it is difficult to identify any era after the Palaeoindian period or any processual question to which Will has not made important contributions.

Recent research in the northern Maya lowlands has revealed temporal parallels with emerging complexity in other parts of Mesoamerica, and even precocious developments that occurred first in the northern Maya lowlands. Two archaeological projects have discovered hundreds of Middle Preclassic sites in northwest Yucatan and dozens of some of the earliest ballcourts known in Mesoamerica (Chapter 2). Scholars working outside of the modern city of Merida have found the earliest "throne room" in the Americas, implying that a complex chiefdom evolved in Yucatan by the late Middle Preclassic (Chapter 3). A particularly complex example of early "dynamic cycling" is demonstrated for Calakmul (a central lowland site in far southern Campeche) that grew eventually to be one of the largest cities in the Classic Maya world (Chapter 4). Work in north central Yucatan (Chapter 5) and Campeche (Chapter 6) has challenged our views about the transitions from the Preclassic to the Classic, and the Classic to the Postclassic. A new mapping project, which can trace its roots back to Frans Blom's work at the Middle American Research Institute, reveals that the density of known sites in the northern Maya lowlands is greater than anywhere else in the Maya area (Chapter 7). The art and architectural planning of Uxmal, one of the most famous of all Maya sites in Mexico, demonstrates that it was one of the ancient "Tollans," a great pilgrimage city on par with the Toltec capital of Tula (Chapter 8). Recent research at Chichen Itza reveals that the "International" style of the site center developed slowly over time and was not introduced by invaders from central Mexico or elsewhere (Chapter 9), and that a wall surrounding the center of the city first served to define sacred space and only later came to have a defensive function (Chapter 10). Analyses of Maya codices, murals, and cave assemblages suggest that appeasement of both local and foreign rain deities, and also of fertility deities linked to agriculture, became very important at the end of the Terminal Classic period (Chapter 11). This lends tangential support to the notion that the demographic decline of Chichen Itza and Uxmal might have been stimulated by poor agricultural conditions and drought. Most importantly, these rituals of renewal and regeneration continued throughout the Postclassic period, demonstrating great continuity. Although Mayapan, the last capital of the northern Maya lowlands, has often been depicted as culturally "decadent," there have been few satisfactory explanations for its condition. Household archaeology reveals that, compared to earlier sites, Mayapan was relatively impoverished (Chapter 12). Finally, although it is often argued that the Spanish conquest is a boundary that clouds comparison between the prehispanic past and historical periods, archaeological and historical evidence demonstrates that during both periods, communities employed similar resilience strategies that often buffered society from the effects of periodic catastrophe and "dynamic cycling" (Chapter 13).

Four themes run consistently throughout our volume and this new paradigm. First, the northern Maya lowlands have their own incredibly rich history and fascinating in situ story to

tell. Second, it is not even possible to understand the central and southern lowlands without considering the northern Maya lowlands. All three areas were integrated, and their histories are interlaced. Third, interaction and competition—at the site level, from a regional perspective, and even when considering the Maya area as a whole—are important forces that drove many cycles of rising and falling sociopolitical complexity. Finally, Will Andrews' many intellectual contributions provide a solid foundation for much of this new research.

Palaeoindian Period (Ca. 13,500–8000 B.C.)

Palaeoindian discoveries are rather rare in the Maya area (Lohse et al. 2006). For the most part, with the exception of cave sites in the Guatemalan highlands (Gruhn and Bryan 1977), they consist of tools or bones recovered without context. Earlier claims for a Palaeoindian presence at Loltun Cave, Yucatan (Velázquez Valádez 1980), now seem unsupported. One of the most recent and exciting developments in the new paradigm has been the discovery of human remains and artifacts in submerged cave systems in Quintana Roo (Barclay 2008; González González et al. 2008, 2010; Than 2010; Universal 2010). To date, five sets of human remains—called the Woman of Hoyo Negro (*Artdaily* 2012; Rissolo 2012), the "Eve" of Naharon, the Woman of Las Palmas, the Man of El Templo, and the Young Man of Hol Chan—have been reported. The last of these sets of remains was found in an articulated position suggesting that it was deliberately placed in the cave (Than 2010). Also found in such submerged caves are hearths, chipped stone tools, and faunal remains, including examples from extinct Pleistocene species, such as a gomphothere (*Artdaily* 2012). Water-filled caves are extremely dynamic systems, and understanding site formation processes can be daunting. Dating the remains has also proven somewhat controversial. Nonetheless, the presence of stalactites and stalagmites in these caves indicate that they once were largely dry, and formed at a time before sea levels rose 15 meters or more at the end of the last Ice Age.

Archaeologists and biological anthropologists who have conducted preliminary studies of these human remains argue that they share more physical traits in common with inhabitants from South Asia and Indonesia than they do with people from northern Asia (González González et al. 2008; see also Barclay 2008; Than 2010; Universal 2010). For these scholars, the implication is that there were multiple migrations across the Bering Straits, that these new finds pertain to a pre-Clovis migration, and that subsistence patterns probably did not rely on Pleistocene megafauna. Such claims, no doubt, will continue to be controversial until many more examples are known. What is clear is that as similar research becomes more difficult to conduct elsewhere in North America, remains such as these found in Quintana Roo will become central to any understanding of the peopling of the New World.

Reconstructions of the climate and ecology of Yucatan ca. 15,000–10,000 years ago suggest that it was dominated by dry savanna, grassland, and perhaps even desert. Like today, surface water would have been scarce, and caves where rainwater collected—after percolating through the limestone—would have been important places for early inhabitants of the new landscape to find water. Although we cannot directly connect these early inhabitants to the Maya who have lived in Yucatan for at least the last 2,800 years, it may be that the importance of caves as ritual places where water was abundant dates back to these early times.

Archaic and Early Preclassic Periods (Ca. 8000–1100 B.C.)

We know little about the Palaeoindian period in Yucatan, but the Archaic and Early Formative are complete lacunae. It is even possible that the Early Preclassic (ca. 2000 B.C.-1100 B.C.)—by which I mean a developmental, cultural, or adaptive stage, rather than a chronological period—did not exist in Yucatan.

With the exception of northern Belize (Pohl et al. 1996) and the Chantuto zone of Chiapas (Voorhies 2004), very few Archaic sites are known in the Maya region (see Lohse 2010). Despite the lack of physical sites, a complex picture of the emergence of settled village life and agriculture has developed in those regions where we have sediment and soil cores. In several areas, maize pollen, charcoal, and other evidence demonstrate that the landscape was cleared and burned and that cultigens were known by 3000 B.C., even though we do not have direct evidence of habitation sites (e.g., Neff et al. 2006; Pohl et al. 1996; Robinson et al. 2002). Nonetheless, the adoption of permanent sedentism, a subsistence strategy based solely on agriculture, and the use of ceramics did not begin to occur in the Maya lowlands until roughly 1100 B.C. (uncalibrated 930 b.c.). It is probable that gourds, nets, baskets, and other perishable tools were used instead of pottery until this time. We do not know why the transition to a Preclassic lifestyle was so late. Some areas may not yet have been inhabited, population levels were undoubtedly low, and it might also be that environmental uncertainty made foraging and hunting supplemented by horticulture a more viable adaptation than agriculture.

In sum, with the exceptions of the Pacific Coast and Piedmont, the Salama Valley of Baja Verapaz, western Honduras, and perhaps Kaminaljuyu, there is to this day no evidence in the Maya area of an Early Preclassic lifestyle parallel to that known for other parts of Mesoamerica during the second millennium B.C. Most sites dating to this time period might be best called culturally "Preceramic," "Aceramic," or even "Terminal Archaic," rather than Early Preclassic, even though they date to a time that is traditionally known by that name. To me, it seems most likely that settled village life was introduced into the Maya lowlands—including the northern lowlands—at the inception of the Middle Preclassic period (Andrews 1990, 2003; Andrews et al. 2008). The Early Preclassic—as a stage characterized by the beginnings of village life, agriculture, and pottery—has so far proven to be as elusive as Basketmaker I has been for the U.S. Southwest.

Nevertheless, it is still possible that someday we may find Early Preclassic pottery and evidence of settled village life dating to before 1100 B.C. in the Maya lowlands (Chapter 14; see Stanton 2000). For two reasons, such evidence may prove even harder to find in the northern lowlands than in the south. First, swamps, ponds, and lakes where sediments accumulate are rare or nonexistent in much of the region, especially northwestern Yucatan where our most vibrant evidence for a subsequent Middle Preclassic occupation is found. For this reason, soil coring of the sort that has been useful elsewhere to document late Archaic occupations and landscape modification is neither particularly feasible nor efficacious. Second, the northern Maya lowlands are characterized by very shallow soils. Deeply buried and well-preserved contexts are the exception rather than the norm in Yucatan. Moreover, architecture dating to later periods was often built directly on bedrock. If there were any Early Preclassic villages in Yucatan, many were probably destroyed either by natural processes or by scraping the palimpsest of earlier settlements in order to build new ones.

Middle Preclassic Period (1100/800 B.C.–400/300 B.C.)

It is not known, therefore, if there was a substantial population in the northern Maya lowlands before the Middle Preclassic period. The lack of strong evidence for a permanent occupation could be taken as implying that the region was uninhabited during the first portion of the Middle Preclassic, ca. 1100–800 B.C. (Ball 1977). Alternatively, foragers and horticulturalists—or even early agriculturalists such as those who lived in western Belize and other parts of the Maya region—could have been present and their remains are too ephemeral or nondescript to identify. There are now tantalizing ceramic clues that perhaps such an initial Middle Preclassic occupation exists.

Pottery of the Early Middle Preclassic

Three ceramic spheres dating to the initial Middle Preclassic have been identified in the central Maya lowlands. These are Xe/Real Xe (identified in the western Peten, and perhaps associated with Mixe-Zoquean speakers rather than with early Maya), Eb/Cunil/Kanocha[1] (identified principally in the eastern Peten and documented most fully in the Belize Valley), and Swasey (localized in northern Belize).

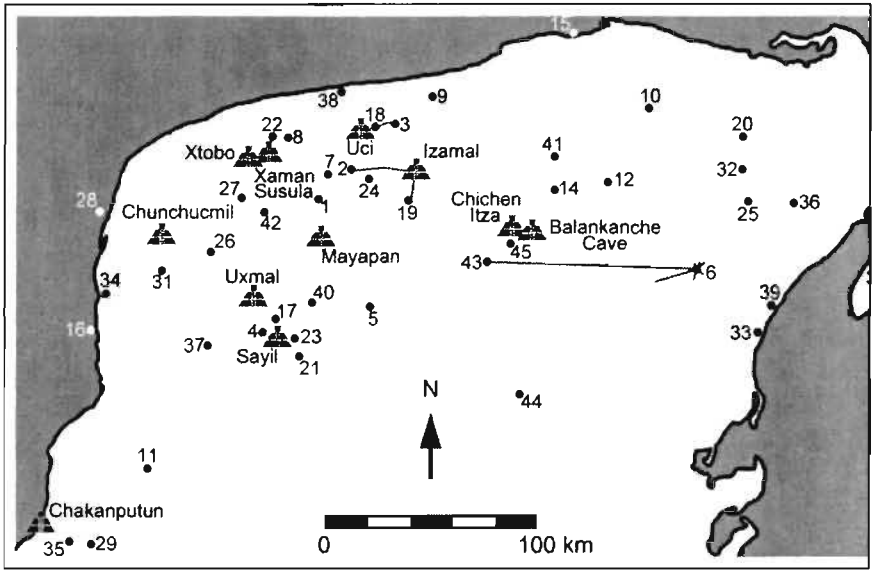

Figure 1.1. Archaeological sites of the northern Maya lowlands. Pyramid symbols with text names represent sites that are the major foci of the chapters in this volume, numbered dots mark sites that are discussed in less detail, and lines represent *sacbeob*. These symbols do not indicate the relative size or importance of sites. 1=Acanceh, 2=Ake, 3=Cansahcab, 4=Chac II, 5=Chacchob, 6=Coba, 7=Cuca, 8=Dzibilchaltun, 9=Dzilam, 10=Dzonot Ake, 11=Edzna, 12=Ek Balam, 13=El Meco, 14=Ichmul de Morley, 15=Isla Cerritos, 16=Jaina, 17=Kabah, 18=Kancab, 19=Kantunil, 20=Kantunilkin, 21=Kiuic, 22=Komchen, 23=Labna, 24=Muna, 25=Naranjal, 26=Oxkintok, 27=Poxila, 28=Punta Canbalam, 29=San Dimas, 30=San Gervasio, 31=Siho, 32=Tres Lagunas, 33=Tulum, 34=Uaymil, 35=Ulumal, 36=Victoria, 37=Xcalumkin, 38=Xcambo, 39=Xelha, 40=Xocnaceh, 41=Xuenkal, 42=Yaxcopoil, 43=Yaxuna, 44=Yo'okop, 45=Yula.

Figure 1.2. Late Preclassic structures at Komchen, excavated and consolidated by E. Wyllys Andrews V and William M. Ringle. April 2009.

According to Will Andrews et al. (2008), sherds with incised decorations resembling Eb/Cunil/Canocha pottery have been found at Komchen and Kiuic (Figures 1.1 and 1.2). At Komchen, the Ek phase, to which this material belongs, has been re-dated and is now considered to predate and be antecedent to Early Nabanche. More recently, Will Andrews (in Andrews and Bey 2011) has argued that the "Cunil-like" pottery at Komchen is more closely related to western Belize pottery dating to the early facet of the Jenney Creek phase, which post-dates Cunil/Kanocha and which began ca. 850 B.C. That is, Ek-phase pottery at Komchen dates to sometime before—but perhaps not long before—about 800 B.C., and is an antecedent to Early Nabanche pottery (Andrews and Bey 2011; cf. Ceballos Gallareta and Robles Castellanos n.d.). At Kiuic, George Bey has found that some Bah-phase pottery contains the same pan-Mesoamerican incised decorations incorporated into pottery with clear Early Nabanche pastes (Andrews and Bey 2011; Andrews et al. 2008). Kiuic is a Puuc site. It astounds me to think that just ten years ago, there was little evidence demonstrating a clear occupation in the Puuc region before the Early Classic period. The discovery of Middle Formative contexts at Kiuic, Paso del Macho, and Xocnaceh has extended our knowledge of the occupation of the Puuc back in time more than 1,200 years.

The recognition of design elements also found on early Middle Preclassic Jenney Creek pottery in the northern Maya lowlands is important because it pushes back the beginning of pottery production in northwest Yucatan to the ninth century B.C., at least a hundred years earlier than previously demonstrated. Nonetheless, this probably should not be construed as implying the arrival of pottery-using inhabitants who migrated from the eastern Peten or western Belize. Later Middle Preclassic pottery from the area shares much in common with ceramics known from the southwest Peten and even Chiapas (Andrews 1990, 2003), suggesting a more complex picture of multiple waves of ideas—and perhaps of some people—coming from different places at different times. Moreover, if there were foragers or horticulturalists living in Yucatan before about 900 B.C., then the adoption of pottery and settled village life might represent a complex fusion of local and introduced culture. This might explain why northern variations of southern pottery are different (Stanton 2000). Simple migration models do not appear supported because the pottery of the northern lowlands, even from its earliest beginnings, is not identical to types known elsewhere.

Complexity and Monumentality during the Late Middle Preclassic Period

By about 600 B.C., the picture begins to clear. It is amazing now to consider that as recently as the turn of this century, just three Middle Preclassic sites (including Komchen) were known in northwest Yucatan, and—although Middle Preclassic pottery was first identified a long time ago (Brainerd 1958)—only a few more Middle Preclassic structures were known across all of the northern Maya lowlands.

In the last 20 years, late Middle Formative ceramics and even architecture have been found at a wide variety of sites across the northern Maya lowlands, and research at these places has been central to the emergence of the new paradigm (Anderson 2003, 2010; Andrews and Robles Castellanos 2004; Gallareta Negrón and Ringle 2004; Gallareta Negrón et al. 2005; Medina Castillo 2003, 2005; Peniche May 2010; Robles Castellanos n.d.).

Several sites in northwest Yucatan—including Xocaneh, Poxila, and Xtobo—contain massive stone platforms (Figure 1.3), and smaller public buildings such as ballcourts (Chapter 2), *sacbes* (raised causeways), temple pyramids, and even what might be called a "throne room" (Chapter 3). Many of these early northwestern sites are built with very large or even massive stones, in what can be construed as a precursor to the megalithic style (Chapter 5) of the Late Preclassic and Early Classic periods.

Similar developments are seen at the Mamom-sphere site of Yaxuna (Ardren and Johnstone 1996; Stanton and Ardren 2005), and—of course—at more distant sites in the central Maya lowlands such as Calakmul (Chapter 4). Such monumentality was thought until recently to be limited to that last region, but we now know that it emerged in some parts of the northern Maya lowlands at about the same time as large structures were built at Nakbe and other late Middle Preclassic sites located in the El Mirador basin.

Figure 1.3. The massive Middle Preclassic platform at Xocnaceh, excavated and consolidated by Tomás Gallareta Negrón. April 2009.

In northwest Yucatan, settlement density reached a level not known elsewhere in the Maya region (Chapter 2). This does not seem to be merely a result of survey coverage or the visibility of sites. It has long been known that during the Late Classic period, this corner of Yucatan was one of the most densely settled regions anywhere in the Maya world (see Figure 7.4). It appears as though the same factors that promoted rapid growth during the Late Classic may also have stimulated early settlement in northwest Yucatan. Just as importantly, there is evidence in this region that a three-tiered settlement hierarchy developed during the late Middle Preclassic, and it is reasonable to expect that such elaborate hierarchies will be found elsewhere in the north dating to this time period.

Such settlement hierarchies, massive public architecture equal in size to anything known at contemporary sites in the central and southern Maya lowlands, and the presence of imported prestige goods (Robles Castellanos n.d.) together imply complex political organization. Such precocious late Middle Preclassic polities could have been complex chiefdoms (Chapter 3) or archaic states, or have cycled between different levels of complexity (Chapter 4). For the moment, I prefer to think of late Middle Preclassic and Late Preclassic polities in the northern lowlands as chiefdoms with various and changing degrees of hierarchical and heterarchical organization, but by the end of the Late Preclassic I have little doubt that archaic states characterized the peaks of such cycles in the northern Maya lowlands, as they did further south (Chapter 4).

Trade with the Olmecs

Excavations at Xocnaceh, Poxila, Xaman Susulha, and other sites have discovered significant quantities of celts made of green igneous stone (Chapter 3; Gallareta Negrón and Ringle 2004; Robles Castellanos n.d.). The exact geological source of these imported objects is not yet known, but they could have been made in the Tuxtla region of southern Veracruz, located in the Olmec heartland. Other evidence of direct or indirect trade with this region includes Olmec-style or, more accurately, Middle Formative carved jade and greenstone. The most famous of these jade artifacts were found at Chacsinkin (Andrews 1986). Since then, more jade and greenstone artifacts have been found in unambiguous Middle Preclassic contexts at Poxila and Tipikal (Robles Castellanos n.d.; Peraza Lope et al. 2002).

We also have evidence that Olmecs imported goods from the northern Maya lowlands. Although no Gulf coast pottery has been recovered in Yucatan, Middle Preclassic Early Nabanche ceramics have been found at La Venta, Tres Zapotes, and San Andres in southern Veracruz and western Tabasco (Andrews 1986; Von Nagy et al. 2002). It should be no surprise that exchange between the Olmec heartland and the northern Maya lowlands was reciprocal, and that ideas and goods did not simply flow from the Olmec to the Maya.

The implication of this wealth of new information on the Middle Preclassic of the northern lowlands is that we cannot now consider the region to be a cultural, political, or economic backwater (Bey 2006). The first large towns containing massive public stone structures were built by paramount rulers in the Peten, the Valley of Oaxaca, the Valley of Mexico, and the northern Maya lowlands at roughly the same time: the late Middle Preclassic.

Late Preclassic Period (400/300 B.C.–A.D. 250/400)

The late Middle Preclassic pottery of Komchen is called the Early Nabanche complex. Since he first defined it, Andrews (1988) has emphasized the strong similarities between that complex

and Mamom pottery found in the central and southern Maya lowlands. Both, for example, contain the ubiquitous Joventud and Chunhinta ceramic groups. For Andrews (1990), the Middle Preclassic is the period during which the greatest similarity is seen in Maya pottery over the entire Maya lowlands.

Of course, Joventud Red from Komchen is not quite the same as Joventud Red from, for example, Tikal. Moreover, there are ceramic groups at sites in the north that do not appear in the south or appear in greatly different concentrations, and the reverse is also true. For this reason, other scholars—most notably Joseph Ball (in Ball and Taschek 2007; Rissolo et al. 2005) and Fernando Robles Castellanos (n.d.; Ceballos Gallareta and Castellanos Robles n.d.) prefer to define Nabanche as a sphere distinct from Mamom/Chicanel, despite these strong similarities. If the validity of these distinct spheres is accepted—and plenty of sites in the north seem to have both Mamom/Chicanel and Nabanche pottery—then an interesting pattern emerges. Ball and Taschek (2007) have noted that sites where Nabanche (both early and late) pottery is dominant, megalithic style architecture dating to the Late Preclassic and Early Classic is found (Figure 1.4; Chapter 5; Mathews and Maldonado Cárdenas 2006). Conversely, sites where Mamom/Chicanel pottery is dominant tend—during the Late Preclassic and following Early Classic—to have Peten-style pyramids with stucco masks set on either side of central staircases (Figure 1.5). Some northern lowland sites, such as Yaxuna, even built triadic groups like those found at Calakmul and elsewhere in the central Maya lowlands. Nonetheless, this pattern is not perfect. Xtobo is a Nabanche sphere site that contains a double triadic structure.

The point is that relatively small regional differences in material culture seen in the late Middle Preclassic period continued and even amplified during the Late Preclassic period. These differences are immediately obvious in architecture. Scott Hutson (Chapter 5) emphasizes that there are two "clusters" of sites with megalithic-style architecture: the plains east and north of Merida (sites including Izamal, Ake, Uci) and the Yalahau region of northern Quintana Roo (sites such as El Naranjo, San Angel, and Tres Lagunas). Nonetheless, the pattern is not particularly strong (see Mathews and Maldonado Cárdenas 2006:Figure 5.2), and there are other examples of megalithic architecture from the Puuc region and as far away as Champoton (Chapter 6). As Hutson contends, it is probably incorrect to assume that the distribution of megalithic architecture can be used to find the boundaries of Late Preclassic and Early Classic polities (cf. Stanton 2000:568, who argues that the presence of a megalithic platform at Yaxuna suggests political and economic domination of that site by Izamal). Mathews and Maldonado Cárdenas (2006) prefer to see the distribution of megalithic architecture as indicating a Late Preclassic to Early Classic interaction sphere.

Recently, scholars have argued that transitional Late Preclassic/Early Classic ceramics of the northern Maya lowlands should be divided into five distinct spheres (Ceballos Gallareta and Jiménez Álvarez 2005; Glover and Stanton 2010). Without doubting this or questioning the assertion that ceramic regionalism increased towards the end of the Late Preclassic, it seems equally important to stress how much was still shared across the whole of the Maya lowlands during this period. By emphasizing the growing differences in the trees, we may lose sight of the fact that in the Late Preclassic, we are all still in the same forest. In no later period do we see ceramic groups or systems so widely shared as in Late Preclassic times, but it is not yet clear what this implies. It was during the late Early Classic period that the pottery of the northern Maya lowlands and central/southern Maya lowlands became dramatically different.

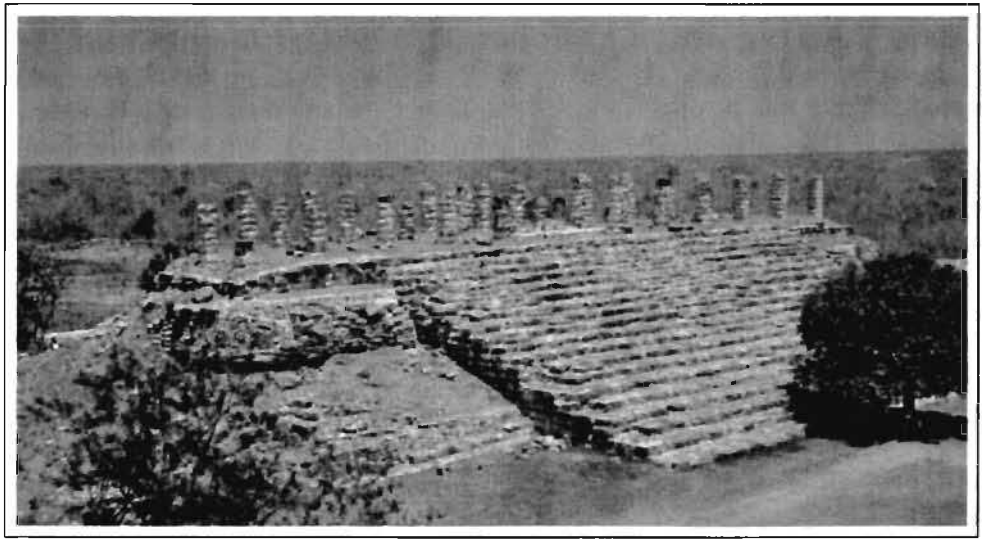

Figure 1.4. Ake Structure 1, an example of megalithic style architecture, excavated and consolidated by Rubén Maldonado Cárdenas. April 2009.

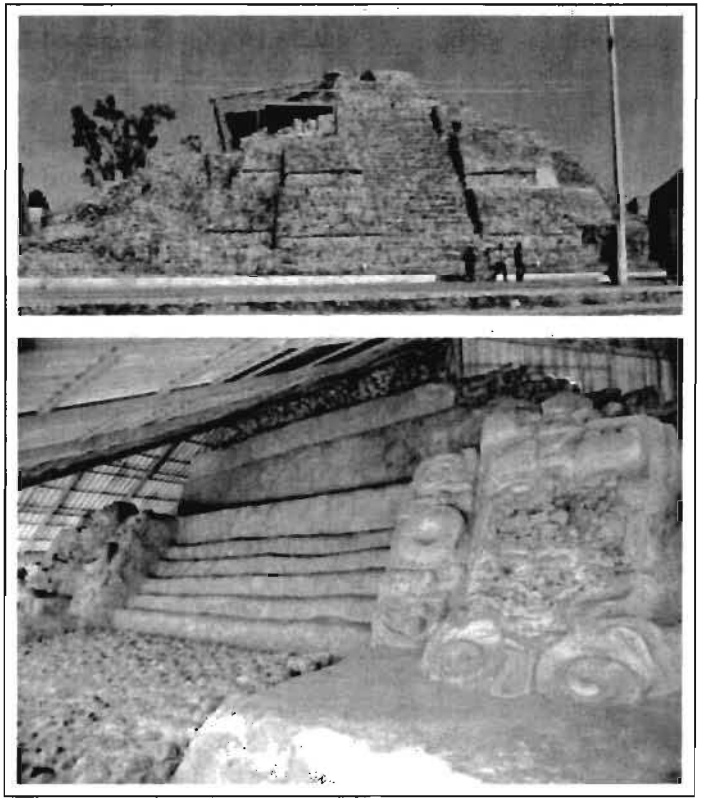

Figure 1.5. Acanceh Structure 1, a Peten-style pyramid with stucco masks flanking a central stair, excavated and consolidated by Beatriz Quintal Suaste. January 2003 (top) and May 2009 (bottom).

Models of Increasing Complexity

Increasing regionalism—albeit with the important caveat that much was still shared over great distances—is therefore considered a hallmark of the Late Preclassic in the northern Maya lowlands. Populations grew, settlement density increased in many areas such as the Puuc, the Yalahau region, and—most especially—within a distance of 50 kilometers from the coast. In the southwest, Edzna grew to be an important Peten-related center during the Late Preclassic Baluartes phase (Forsyth 1983). Several models explaining the further elaboration of political complexity during this period have been proposed and are summarized by Bey (2006:28-30). Factors such as environmental and social circumscription, the presence of commercially exploitable salt along the north and northwest coasts, regional competition, and ceremonialism have all been cited as contributing to this growth (Ball 1977; Dunning 1992; Ringle 1999). What these models share is that they do not presuppose that political complexity was the result of interference by or the emulation of neighbors in the southern and central Maya lowlands. Instead, they emphasize local and regional factors. This focus on the northern lowlands as a source of its own change is characteristic of the new paradigm. In situ evolution is key.

It may be time to reconsider certain aspects of these models. To begin with, we now know that political complexity and population growth began not in the Late Preclassic but during the Middle Preclassic. Moreover, Komchen no longer stands out as the unique example of a Middle Preclassic site in the northern Maya lowlands, and we now know that there were other large and even more complex sites at that early time. The roots of elaboration and complexity, therefore, go deeper than the Late Preclassic period, so we should not focus solely on that period when seeking to explain process. Second, such isolationist models do not seem viable given how much material culture was still shared across the entire Maya lowlands during the Late Preclassic period. The northern lowlands certainly were not peripheral to changes happening elsewhere in the Maya region at that time, nor were the inhabitants of the region passive victims of that change. Instead, I look forward to reading soon about new models that portray the northern Maya lowlands as actively engaged in the processes that transformed the *entire* Maya world during the Late Preclassic.

Early Classic Period (A.D. 250/400–600)

For decades, our understanding of the southern Maya lowlands was dominated by our knowledge of Tikal. We tended to view the entire region through a Tikal-centric lens, so the "Middle Classic hiatus" of that site was once thought to have been a widespread phenomenon (e.g., Willey 1974). Similarly, a great deal of what we know about the Early Classic northern lowlands was derived from Middle American Research Institute research directed by Bill and Will Andrews at Dzibilchaltun and Komchen. These two sites experienced significant population loss during the transition to the Early Classic period (Andrews 1981, 1988; Andrews and Andrews 1980). It is therefore not surprising that other archaeologists extrapolated this local pattern of demographic decline to much of the northern Maya lowlands, and did not consider population levels to rise again until the Late Classic period (Dunning 1992:65; Lincoln 1985:55, both cited by Bey 2006:31). In fact, demographic loss during the long and poorly understood transition between the Late Preclassic and Early Classic period has been documented at other sites and other areas, including the Peten-related site of Edzna (Forsyth 1983), Yaxuna, and the Yalahau region (Glover and Amador 2005; Glover and Stanton 2010).[2]

Nevertheless, the pattern of demographic decline during the Early Classic period was not universal in the northern Maya lowlands. Large Early Classic centers and even cities have long been known. These include Acanceh (Hagar 1914; Seler 1911), Ake (Roys and Shook 1966), Uci (Maldonado Cárdenas 1979), Oxkintok (Shook 1940), Coba (Andrews 1938; Thompson et al. 1932; Villa Rojas 1934), and—of course—Izamal (Stephens 1868).

That the monumental architecture surrounding the great plaza of Izamal is among the most massive ever built by the Maya is not a new discovery (Figure 7.8). That the area of the city itself grew to be 53 square-kilometers—nearly half that of Tikal at its maximum Late Classic extent—is a surprising new observation (Chapter 5; Burgos Villanueva et al. 2004). We can conservatively argue that the borders of the Izamal polity were defined by the length of its longest *sacbes*, 29.7 and 14.2 kilometers, implying that it encompassed an area of at least 1,320 square-kilometers. But the Izamal polity might have been much larger, and probably included more distant sites such as Xcambo, located on the north coast some 51 kilometers from Izamal (Sierra Sosa 1999). Thus, the large city of Izamal was clearly the capital of an important regional state during the Early Classic period (Chapter 5; see especially Millet Cámara 1999; Maldonado Cárdenas 1995).

Despite its size, Izamal is all too frequently overlooked by archaeologists who work outside the northern lowlands. This is because the site lacks hieroglyphic texts, because it has no currently visible artwork (although the stucco mask on the Kabul structure illustrated by Catherwood is an icon of Maya archaeology), because much of the ancient city was destroyed long ago by the growth of the colonial and modern town, because dating its architecture has proven somewhat difficult, because it is known from the books of *Chilam Balam* as a Post-classic center, and simply because it is not located in the central or southern Maya lowlands.

The Early Classic period in the northern lowlands is marked not only by the emergence of large cities and states like Izamal, but also by greatly increased international trade, the emergence of partially commercialized market economies, and—by the late Early Classic—a ceramic tradition that would distinguish the northern lowlands from the south for the remainder of the prehispanic period.

International Trade and Teotihuacan "Influence"

The two sites that have contributed the most in recent years to our knowledge of international trade during the Early Classic are Xcambo and Chunchucmil. Excavation of the first, a small coastal settlement with megalithic architecture, has revealed important trade connections with coastal Campeche, Tabasco, and Belize. Most notably, polychrome pottery at Xcambo likely was imported from the Peten (Sierra Sosa 1999, 2001). In addition to being an important trade center almost certainly linked to Izamal, Xcambo was—and still is—a salt-producing community.

Chunchucmil (Chapter 5) is unique in several respects. First, the population density of this Early Classic city of 31,000 to 43,000 inhabitants is greater than that of many other Maya cities such as Tikal, Izamal, and Calakmul. Second, it is located in an especially infertile area, suggesting that food was imported and some activity other than farming supported the local population. Third, the public architecture of the city is small and modest in comparison to that of other major Maya cities. For these and other reasons, Bruce Dahlin and his colleagues have argued that Chunchucmil was an important gateway community and market city that supported itself through trade (e.g., Dahlin and Ardren 2002; Dahlin et al. 2007; Hutson et al. 2006, 2010).

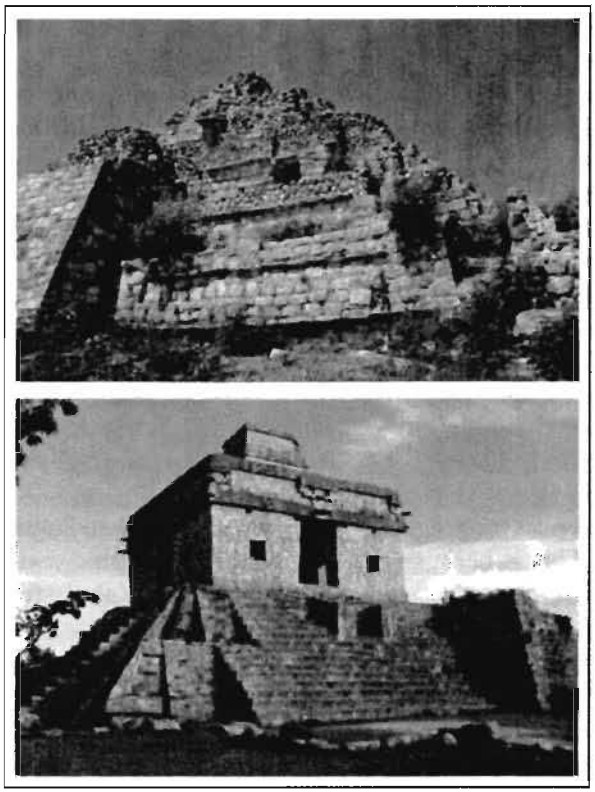

Figure 1.6. Architecture from northwest Yucatan incorporating Maya variants of the *talud-tablero* form, best known from Teotihuacan. Top: Structure MA1, Oxkintok excavated and consolidated by Manuel Rivera Dorado, April 2009; Bottom: Temple of the Seven Dolls, Dzibilchaltun, excavated and consolidated by E. Wyllys Andrews IV, January 2003.

Despite their involvement in international trade, Chunchucmil and Xcambo exhibit only the weakest of ties with the great central Mexican city of Teotihuacan. To me, this seems to be the general rule for the northern lowlands. Teotihuacan inspired *talud-tablero* architecture has been found at several sites in the region (Andrews 1979b), but always in an eclectic style combining Maya, central Mexican, and even Gulf coast elements (Figure 1.6). For Oxkintok, one of the few late Early Classic sites in the northern Maya lowlands that displays a somewhat wider range of foreign cultural traits, Carmen Varela Torrecilla and I (2003) have argued that interaction reflects participation in a pan-Mesoamerican exchange system that included not only Teotihuacan, but also—and more importantly from the perspective of Oxkintok—sites in the Maya highlands and central lowlands.

As the power of Teotihuacan waned, followed about 150 years later by the decline of central lowland cities such as Calakmul and Tikal, Oxkintok and other cities in the north continued to strengthen and broaden their international ties. Most importantly, we stress that the rather limited evidence for indirect exchange with Teotihuacan does not imply that such interaction somehow stimulated the rise of Oxkintok. Instead, we see growing internationalism as a *natural consequence* of the emergence of Oxkintok as the capital of a regional state during

the late Early Classic period. This general argument can be extended to many important northern lowland cities of the period, including those that exhibit neither direct nor indirect ties with Teotihuacan.

Michael Smyth and his colleagues who work at the nearby and much smaller Puuc site called Chac II have argued for a very different interpretation of Teotihuacan interaction (Smyth and Ortegón Zapata 2006; Smyth and Rogart 2004). They cite foreign-style residential architecture, ceramics, artwork, and burial practices as implying that Teotihuacanos or their surrogates married into the local population and lived at Chac II. Most importantly, they see this interaction with central Mexico as stimulating the rise of urbanism in the region. It is beyond the scope of this introduction to address their hypothesis in detail, but I concur strongly with Stanton (2005) and do not see most of what is presented as evidence from Chac II of interaction with Teotihuacan as indicating the presence of foreign colonists. Moreover, I cannot imagine a viable reason why Teotihuacan would establish a trading post or enclave at this small site, and yet ignore already existing, large, and nearby market centers such as Chunchucmil. The ideological importance of the Gruta de Chac (Smyth and Ortegón Zapata 2006:139), a local cave containing water, surely is insufficient; there are many other caves with water in them that are closer to Teotihuacan. If there were foreigners at Chac II, they must have been in hiding during the Early Classic period.

Early Classic Ceramics of the Northern Lowlands

One of the defining characteristics of the Early Classic period throughout the lowlands is the appearance of the first polychrome pottery. Polychrome ceramics dating to both the Early and Late Classic period are found at northern Maya lowland sites, but—with the exception of some coastal trading communities—the quantities decline dramatically the farther one moves to the north and the further forward one moves in time. By the late Early Classic period, ceramic production and decoration techniques in the northern Maya lowlands became quite distinct from those of the southern and central Maya lowlands, reflecting a weakening of interaction between the two areas.

Varela Torrecilla (1998; Varela Torrecilla and Braswell 2003) has argued that three important changes in ceramic manufacturing occurred at the Puuc site of Oxkintok during the period of A.D. 500/550–600. First, there was a complete cessation of the local production of polychrome pottery at the site at this time. Second, improvements in firing technology led to the development of the hard-paste ceramics that are so diagnostic of the Late and Terminal Classic periods. Third, production became highly standardized, likely because of direct control by elites. Although there is debate as to whether or not the Oxkintok Regional Phase constitutes a distinct ceramic phase or is a facet of a larger phase (Robles Castellanos 2000), what is clear is that in the late sixth century A.D., the earliest pottery related to Slate ware was produced in the Puuc region.

Late Classic Period (A.D. 600–780)

The Late Classic period saw great population growth, cultural florescence, and political expansion. Although some polychromes were produced at a wide range of northern lowland sites during the Early Classic, there were only two important production zones of polychrome pottery in the north during the Late Classic: the Rio Bec-Calakmul region and northeast Campeche, specifically an area containing Edzna and the Chenes zone (Ball 1975; Boucher and

Palomo 1995; Forsyth 1983; Matheny 1970; Nelson 1973:136; Williams-Beck 1999). In contrast, the well-fired but relatively plain pottery of the Cehpech sphere—which had its beginnings at the end of the Early Classic in the Puuc region—became widespread across the peninsula at this time. By A.D. 700 or 750, in fact, Edzna ceased to produce or consume polychrome pottery and became a Cehpech-sphere site. Thus, the divergence between the ceramics of the northern Maya lowlands and the southern and central Maya lowlands that characterized the Early Classic period continued and increased during Late Classic times.

By A.D. 730, population levels in the Puuc region rose to new heights, and many sites flourished. At this time, the building technique of core-veneer masonry, which had its roots in the sixth century, became the dominant construction method of the region. During the course of the Late and Terminal Classic periods, Puuc masonry would reach levels of elaboration and elegance unknown elsewhere in the Maya area (Chapter 8). Variants of Puuc-style masonry, sometimes incorporating load-bearing walls, eventually spread across the northern Maya lowlands from Edzna to Ek Balam.

During the Late Classic period, Dzibilchaltun became a massive and densely populated city (Andrews 1981). Population densities in northwest Yucatan grew to their greatest extent, a level, as mentioned above, not seen anywhere else in the Maya lowlands. Late Classic pottery of Dzibilchaltun included large amounts of Muna Slate, a diagnostic kind of pottery within the Cehpech complex. Very small quantities of polychromes were imported from the southern and central Maya lowlands at the onset of Late Classic, but later in the period all imported polychromes came from either the Chenes region or the Rio Bec zone. After about A.D. 750, virtually no polychromes were traded to Dzibilchaltun (Andrews 1975:245).

Izamal continued to thrive during the Late Classic period. Other large northern sites that reached their greatest extent during the Late Classic period include Edzna, Sayil, Coba, and Ek Balam. Two major projects at Ek Balam have contributed greatly to our understanding of that site (Bey et al. 1997, 1998; Houk 2006; Lacadena García-Gallo 2005; Ringle and Bey 2001; Ringle et al. 2004; Vargas de la Peña and Castillo Borges 1999, 2005). The first, directed by Will Andrews' former Tulane graduate students, mapped the city, conducted settlement and environmental studies, excavated in habitation zones outside of the epicenter, and developed a detailed ceramic typology and chronology. The second project, directed by scholars based at the INAH regional center in Merida, excavated and consolidated the grandest structures in the epicenter of Ek Balam and studied the texts and monuments of the site. Data generated by both projects complement each other, and demonstrate that site-center, urban, and rural hinterland studies are all necessary to understand the history of an ancient Maya city.

Ek Balam at the End of the Late Classic Period

Occupation of Ek Balam extends from the Middle Preclassic into the colonial period, but the site was at its peak during the Late Classic and Terminal Classic periods. During the Late Classic period, Ek Balam belonged to the Cehpech sphere, but the ceramics of the site more closely resemble materials from Dzibilchaltun and the Puuc region than eastern Cehpech pottery from nearby Coba (Bey et al. 1998:114). Some architecture at Ek Balam contains features of the Puuc style, strengthening this association.

Although Ek Balam was settled long before the end of the Late Classic period, we now know that it was a dynastic capital with an emblem glyph for only a short period of time beginning at the very end of the Late Classic and extending a few generations into the early Terminal Classic period. U K'it Kan Le'k Tok', the dynastic founder of Ek Balam who built

much of the visible architecture in the epicenter of the site, ruled from A.D. 770 to 801 (Chapter 14). The excavation of his tomb on Structure 1 by the INAH team was one of the most spectacular discoveries of the 1990s (Figure 1.7). The decorated façade outside the tomb is rightly said to evoke the Chenes architectural style. The doorway is a large monster mouth that is surrounded by teeth, and up above are eyes and a nose. To enter the building, one must climb over the teeth and walk across the lower jaw. Although Chenes-style buildings are known in the Puuc, this example is very far afield from the Chenes region.

Perhaps more striking than the overall design of the structure are its details. In many respects, the three-dimensional sculpture on the façade has more in common with Late Classic sculpture from Copan, Honduras—the site where Will Andrews directed his most recent fieldwork—than with sculpture found at any other site in the northern lowlands. Carved skulls on the lower molding of this structure resemble similar skulls on Structure 10L-22 of Copan, built in A.D. 705.[3] The doorway on the exterior façade of Structure 10L-22 also can be said to be Chenes in style, despite the great distance between Copan and the northern Maya lowlands.

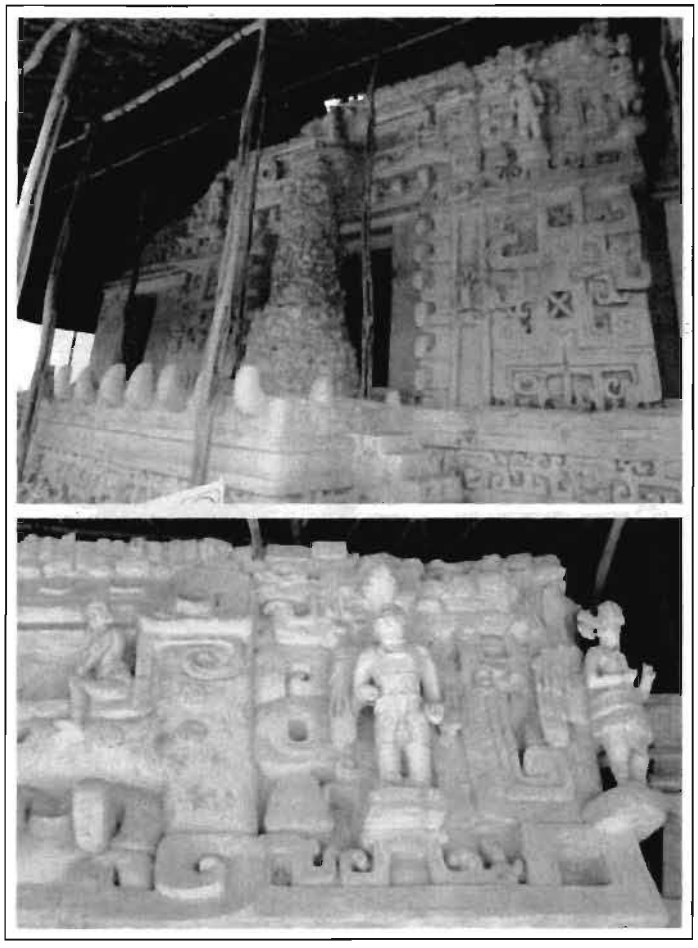

Figure 1.7. Exterior façade of the tomb of U K'it Kan Le'k Tok', Ek Balam, excavated by Leticia Vargas de la Peña and Víctor Castillo Borges. Top: May 2003, before the consolidated pillar supporting the nose above the doorway was removed. Bottom: March 2008.

More remarkable ties with Structure 10L-22 of Copan can be seen in many examples of Late to Terminal Classic Rio Bec and Chenes architecture, as well as in Terminal Classic Puuc architecture. One of the hallmarks of all these styles is stacked monster masks (Chapter 8). Monster masks of the sort that are commonly called "Chaaks," but most of which appear to be variants of the Wits' earth monster, begin to adorn the corners of structures built in the northern lowlands in the late eighth century. In the Puuc region, they are *de rigueur* on Classic Puuc Mosaic style structures dating to A.D. 830–900/950 (Figure 1.8 left). The earliest currently visible example, however, of such stacked monster masks is found on Structure 10L-22 of Copan, built in A.D. 715 to commemorate the earlier inauguration of the ruler Waxaklajuun Ub'aj K'awiil (Figure 1.8 right). A still earlier example of stacked Wits' corner masks was found deeply buried within the Copan Acropolis (Robert J. Sharer, personal communication 2011). The chronological placements of the tomb of U K'it Kan Le'k Tok', the northern lowland monster mask stacks, and the examples at Copan imply that the flow of the direction of these architectural and sculptural ideas must have been from south to north (see Sharer 1994:638). But it must also be that ideas from the northern lowlands flowed southwards during the Late Classic period, as people had for some time (Sharer 2003). Terminal Classic architecture at Nakum, Guatemala, for example, is reminiscent of core-veneer Puuc-style architecture.

Figure 1.8. Stacked monster masks found on the corners of Maya structures. Left: Palace of the Governor, Uxmal (September 2008). Right: Structure 10L-22, Copan (May 1991). The Copan mask stack predates all known examples from the northern Maya lowlands.

Terminal Classic (A.D. 780–900/950) and Early Postclassic (A.D. 900/950–1200) Periods

In the northern Maya lowlands, the Terminal Classic and Early Postclassic periods are characterized by the rise of great cities, dramatic demographic surges, the apex of regional art and architectural styles, and great increases in mercantilism, long-distance trade, marketing behavior, and participation in a world religion (Braswell 2010; Braswell and Glascock 2007; Ringle et al. 1998). These two periods are also characterized by the collapse of all these things. Such collapse took place in most of the northern lowlands during the Terminal Classic, and somewhat later at Chichen Itza in the Early Postclassic period.

Terminal Classic Highs and Lows

During the Terminal Classic period, the great city of Uxmal emerged as the most powerful political capital in the Puuc region (Chapter 8), and Chichen Itza quickly grew—virtually *de novo*—to be the largest and most powerful city in west-central Yucatan (Chapters 9–11). As in the southern and central Maya lowlands, some sites and regions experienced political and demographic collapse during the Terminal Classic period. These include the Rio Bec region just south of the southern fringe of the northern lowlands. In Quintana Roo, Coba ceased to be a great city relatively early in the Terminal Classic period, as did the major metropolis of Calakmul in the central Maya lowlands of southeastern Campeche (Chapter 4; Braswell et al. 2004). At Ek Balam, there are no hieroglyphic texts that unambiguously postdate A.D. 841 (Lacadena García-Gallo 2002), suggesting that the decline of dynastic rule at that site might have occurred during the middle of the ninth century. By about A.D. 900, sites relatively close to the emerging Chichen Itza—such as Yaxuna and Ek Balam—suffered significant depopulation and near-to-total abandonment. To the west, large quantities of ceramics and exotic Mexican obsidian dating to the Terminal Classic period demonstrate that the city of Izamal continued to flourish during this period, but probably suffered significant decline sometime after A.D. 1000. In northwest Yucatan, Dzibilchaltun certainly saw significant political upheaval during the Terminal Classic period (Andrews and Andrews 1980), but some structures were built then and incorporate stylistic elements from the Puuc region and Chichen Itza (Andrews 1979a). Nonetheless, Dzibilchaltun was virtually abandoned by the beginning of the Early Postclassic period. To the southeast, construction activity at Edzna continued into the Terminal Classic period, and both ceramics and architecture dating to this time are closely tied to the Puuc region (Forsyth 1983). Edzna collapsed at roughly the same time as Puuc polities to the northeast.

The pattern of decline grew as the Terminal Classic progressed and transitioned into the Early Postclassic period. Although the beginning of the tenth century saw the absolute height of art and architecture at Uxmal, there is little evidence that Puuc-style constructions were built at that site—or anywhere else in the region—after about A.D. 925 (Chapter 8). We cannot precisely date the collapse of Uxmal, but it seems to have occurred within 20 to 50 years of its peak. At roughly the same time, the entire Puuc region suffered a demographic decline from which it never recovered. Small C-shaped and L-shaped structures were built in plazas and in front of palaces and temples at Uxmal (Huchím Herrera and García Ayala 2000), and at other Puuc sites during or shortly after the demographic collapse. In fact, these enigmatic structures are found at many other northern and even central lowland Maya sites dating to the late

Terminal Classic/Early Postclassic (Bey et al. 1997). It is tempting to link them to a political takeover or re-occupation by people from Chichen Itza, but the cultural affiliation of these structures is insecure. At Xkipche—a relatively modest Puuc site not far from Uxmal—such buildings are associated with late Cehpech ceramics (Hanns Prem, cited in Braswell et al. 2011), suggesting that they probably do not represent an invasion from outside the Puuc. Moreover, these kinds of structures are not known at Chichen Itza itself (E. Wyllys Andrews V, personal communication 2011).

Thus, by A.D. 900/950, the end of the Terminal Classic period as defined for this volume, most of the cities of the northern Maya lowlands were either abandoned or were occupied by small, remnant populations. I have chosen to use this date to divide the Terminal Classic and Early Postclassic because it marks both the end of the Puuc florescence and the construction of the Castillo, the first great International style structure on the Great Platform of Chichen Itza (Chapter 9). By the end of the Terminal Classic period, population levels dropped across the peninsula, and—for the most part—became concentrated in coastal communities (Chapter 6; Andrews and Sabloff 1986; Benavides Castillo 1981; Eaton and Ball 1978; Robles Castellanos and Andrews 2000). The great exception to this general pattern is Chichen Itza, which flourished for the first 100 to 150 years of the Early Postclassic period.

It has been suggested that the decline of Coba (Andrews and Robles Castellanos 1985), Dzibilchaltun, and the Puuc region (Andrews and Sabloff 1986) might have been caused by the military expansion of Chichen Itza. Perhaps this was the case for fortified Ek Balam and Yaxuna (Freidel 2007; Ringle et al. 2004). But in the new paradigm, Chichen Itza expansion models are not as popular as they once were, in part because there does not seem to be a time period when Chichen Itza-style ceramics dominated the peninsula as a "horizon." The regional state of Chichen Itza—although certainly significant in size—was much smaller than we once thought, and its great influence might best be conceived in terms of religious and economic authority rather than direct political dominance or military control.

The North and South during the Terminal Classic Drought

Recently, Andrews et al. (2003) have made an important contribution to our understanding of the relevant factors and timing of the end of Classic civilization in the northern Maya lowlands. They argue that demographic and political declines in the north at the end of the Terminal Classic should be linked to the great "Classic Maya Collapse" that occurred somewhat earlier in the southern and central lowlands (Culbert 1973; Demarest et al. 2004). They assert that considered together, the collapse of the south and the north constituted a chain of events that took place over a 200–250-year period.

The political and demographic processes of collapse began in the south, perhaps with endemic warfare in the Petexbatun region (Demarest 2004), with the defeat of Calakmul by Tikal and of Copan by Quirigua (Braswell et al. 2004), and—most importantly—with a long-term and harsh drought (Curtis et al. 1996; Haug et al. 2003; Hodell et al. 2001). The effects of these events—which probably led to the displacement of large numbers of people within the context of ever-declining climatic conditions—radiated outward in waves from the central and southern lowlands, culminating in the collapse of the Puuc and much of the north during the first half of the tenth century A.D. Demographic shifts to the coastal margins of the peninsula during the Terminal Classic period (Chapter 6) not only indicate greater participation in international, sea-based trade routes, but also should be interpreted as an adaptation to an environment that could no longer reliably support large, inland populations of farmers. Among

the many remaining questions is how and why Chichen Itza managed to survive—and actually thrive—throughout the tenth and well into the eleventh century A.D. (Chapters 9–10). Sacred offerings in nearby Balankanche Cave are consistent with calling for rain and fertility (one might speculate to end a drought), but careful analysis shows that they were made within the broader and periodic context of scheduled renewal rituals (Chapter 11). Moreover, these rituals of creation, renewal, and regeneration continued at least until the Spanish conquest—that is, after the Terminal Classic drought—and involved performers of both genders.

The Cehpech-Sotuta Problem

The argument put forward by Andrews et al. (2003) relies on two related and important changes to our understanding of the chronology of the northern Maya lowlands that are central to the new paradigm. The first change concerns absolute dates. We now know that there was very little or no monumental construction in the Puuc region after about A.D. 925 (Chapter 8). Moreover, we know that the traditional chronological placement of Chichen Itza (A.D. 1000–1200) is too late. We still do not know precisely when the last building was raised at Chichen Itza, but most of the structures currently visible in the northern (and slightly later) portion of the site center were built during the interval A.D. 900/950–1050 (Chapter 9), at the end of the Terminal Classic and at the beginning of the Early Postclassic periods.

The second and related chronological issue centers on the resolution of an old debate concerning the ceramics of the Puuc region, Dzibilchaltun, Coba, and many other sites with Late and Terminal Classic components. Although the specific ceramic complexes of these sites differ, and distinct—but closely related—ceramic spheres can be drawn, they all can be called "Cehpech." The Cehpech sphere was first defined by Robert E. Smith (1971:144-169) and—if we expand its original definition to include ceramic groups from both the northwestern and northeastern peninsula—consists of pottery belonging to the Chum Unslipped, Muna Slate, Ticul Thin Slate, Teabo Red, Altar Fine Orange, Balancan Fine Orange, Holactun Cream, Achote, Zupulche, Vista Alegre, and Maquina Red ceramic groups (Smith 1971; Robles Castellanos 1990, 2005). Smith dated the Cehpech sphere to the Terminal Classic period, ca. A.D. 800–1000. According to Smith, Cehpech pottery dominated the entire northern lowlands during this period and was subsequently replaced by ceramics of the Sotuta sphere centered at Chichen Itza. Sotuta ceramic groups include Sisal Unslipped, Dzitas Slate, Dzibiac Red, Tinum, Silho Fine Orange, Tohil Plumbate, and small quantities of other imports. Smith (1971) argued that the Sotuta sphere came to dominate the northern Maya lowlands, replacing Cehpech during the interval of A.D. 1000–1200.

It is important to note that many of the differences between the Cehpech and Sotuta complexes seem rather small to an outsider: they both contain hard-fired slate wares, analogous red utilitarian wares, rather similar unslipped pottery, and different sorts of Fine Orange. Both complexes are clearly related—but certainly not identical—in terms of technology and decoration. The distinctions between them are most obvious in diagnostic forms (particularly in the Sotuta complex) and in the different local resources used to build the pottery. With these important exceptions, the Cehpech and Sotuta complexes look more like variations on a set of similar themes rather than pottery belonging to dramatically different ceramic traditions. There certainly is no good reason to consider Cehpech ceramics as "Maya" and Sotuta pottery as "Toltec-Maya."

By the late 1970s, Smith's replacement scenario was widely questioned (Ball 1977, 1979; Lincoln 1986, 1990; Ringle et al. 1998; Robles Castellanos 2005). Alternative partial and

complete "overlap" models were proposed. Unlike Smith, who assumed that the differences between Cehpech and Sotuta were entirely chronological, the overlap models suggest that a great deal of the variation is spatial or regional in character. Moreover, we now know that the Sotuta sphere did not come to encompass all—or even most—of the northern lowlands. Although some Sotuta pottery is found at quite a lot of sites dating to the Terminal Classic and Early Postclassic periods, the sphere itself is limited to the region around Chichen Itza, sites between there and the north coast, and a few east coast sites. Most scholars now favor a partial overlap model, where the hard-fired ceramics of the Cehpech complex began to be produced during the sixth century A.D., and the widest distribution of the sphere (or spheres) is roughly A.D. 730–900/950 (Robles Castellanos 2005). In contrast, Sotuta pottery began to be produced in the area immediately surrounding Chichen Itza at about A.D. 800/850 (Pérez de Heredia Puente 2008), spread to its maximum distribution during the period A.D. 900/950–1050, and then continued to be produced at some Early Postclassic coastal sites that outlived Chichen Itza itself.

International Trade of Ceramics and Obsidian during the Terminal Classic

Throughout the Maya lowlands, the Terminal Classic period is characterized by increasing international trade. In some cases, this seems to reflect collapse. At Copan, Honduras, for example, locally produced fine-line incised and carved vessels and polychrome pottery imported from the Peten were replaced by polychromes produced in non-Maya northern and central Honduras (Bill 1997). At Calakmul, locally and regionally produced polychromes were replaced by imported Slate ware and local imitations (Braswell et al. 2004). Throughout much of the lowlands, imported Fine Orange ware and locally made vessels in similar forms with similar carved designs began to appear about A.D. 830. The sense I have is that remnant local elites who no longer had access to—or knowledge of how to make—Late Classic polychromes reached out to more distant trading partners for status-endowing ceramics. This is not the case for the northern lowlands, where many important pottery-producing centers thrived during the Terminal Classic period. Thus, imported Fine Orange and Tohil Plumbate were added to locally and regionally produced "elite" wares. Northern elites searched further afield for goods such as Mexican obsidian and turquoise. These materials came to supplement or even replace obsidian and jade from the Maya highlands, which became harder to acquire after the collapse of polities in the southern and central lowlands.

Throughout most of the Classic period, consumers in the northern Maya lowlands received the bulk of their obsidian from the El Chayal source area, located approximately 25 kilometers northeast of Kaminaljuyu. This remained the case for most sites in the northern lowlands during the Terminal Classic period, suggesting that consumers relied on attenuating connections with the south and, importantly, the recycling of old and discarded artifacts to meet their needs for obsidian (Braswell and Glascock 2011). In comparison, even in the earliest architectural contexts of Chichen Itza that date to before about A.D. 800/850, a significant proportion of the obsidian comes from source areas in central and west Mexico. In declining order of frequency, these Mexican sources are Ucareo (Michoacan), Pachuca (Hidalgo), Zaragoza (Puebla), Paredon (Puebla), Pico de Orizaba (Veracruz), Zacualtipan (Hidalgo), and Otumba (Estado de Mexico; Braswell and Glascock 2007:Figura 6; Braswell et al. 2011:Table 2). By the end of the Terminal Classic and throughout the Early Postclassic period, roughly 70 percent of all obsidian consumed at Chichen Itza would come from these sources. Similar consumption patterns are seen at Isla Cerritos, a northern port of Chichen Itza (Andrews et al.

1989). A strong correlation emerges: those sites with lots of Sotuta ceramics tended to have access to exotic obsidian from Mexico. In contrast, those sites with little or no Sotuta material (i.e., Cehpech sites) relied almost exclusively on the El Chayal source. Finally, sites with significant quantities of pottery belonging to both complexes—such as Xuenkal and Ichmul de Morley—exhibit a mixed pattern of obsidian procurement (Braswell, unpublished data on Xuenkal 2008; Braswell and Glascock 2007:Figuras 3-7; Smith et al. 2006:164-166). At some sites, this third pattern may reflect temporal distinctions between periods before and during the era of Itza economic dominance.

Only four northern lowland sites dating to the Terminal Classic that are outside of the Chichen Itza realm show great reliance on Mexican obsidian. These are Izamal (where Sotuta ceramics are quite common, and which may have been politically or economically tied to Chichen Itza), Siho, Uaymil, and Oxkintok (Braswell and Glascock 2007). Siho is, for the most part, a Late Classic period site with limited Terminal Classic pottery (Fernández Souza et al. 2003). It appears likely that the Mexican obsidian at this site (33 percent of the entire sample) dates to the end of occupation ca. A.D. 800–850. Uaymil is a Late to Terminal Classic site that could have served as the port for Uxmal (Cobos Palma 2004; Cobos Palma et al. 2005; Inurreta Díaz and Cobos Palma 2003) or perhaps for some other Puuc site, such as Oxkintok. The sample of obsidian from Uaymil is small, but procurement patterns there seem to mirror those of Siho (Braswell and Glascock 2007:Figura 3). In two ways, obsidian procurement patterns at Oxkintok are quite different from those of any other Puuc site I have studied. First, fully 53 percent of the obsidian recovered from the site comes from central Mexico. Unique for any site in the northern lowlands dating to any time period, most of the Mexican obsidian is green and comes from the Pachuca, Hidalgo source (Braswell and Glascock 2007:Figura 4). I stress that the green obsidian I have studied was not associated with "Middle Classic" contexts dating to the Oxkintok Regional phase, and hence, cannot be attributed to earlier trade with Teotihuacan (Varela Torrecilla and Braswell 2003). Chichen Itza, via its port at Isla Cerritos, therefore, was not the only Terminal Classic site with access to obsidian from central Mexico. Some seems to have entered the northern lowlands from the west, and Oxkintok may have had its own highly distinct exchange relations.

Market Economy during the Terminal Classic and Early Postclassic

Michael D. Glascock and I have argued that obsidian procurement patterns in the northern Maya lowlands imply: (1) that Chichen Itza had widespread exchange connections—direct or indirect—with a variety of sites in central Mexico; (2) that the Toltec site of Tula is but one of these sites; (3) that a fully commercialized and competitive market system emerged in Mesoamerica by the Epiclassic/Terminal Classic period; and (4) that first Chichen Itza (ca. A.D. 800) and later Uxmal (ca. A.D. 900–950) participated in this system (Braswell 2003, 2010; Braswell and Glascock 2003, 2007). Maya involvement in this pan-Mesoamerican market system, however, did not survive the collapse of Chichen Itza. In later periods, Maya economies seem to have been organized as simpler, partially commercialized markets, or even as redistributive systems (Braswell 2010).

Chichen Itza and the Toltecs during the Early Postclassic Period

The most enduring question about Chichen Itza—and to a lesser degree, Uxmal—has been the nature of interaction with the Toltecs of Tula. The traditional perspective, most completely formulated by Tozzer (1957), is that there were two periods of occupation at Chichen Itza

(Chapter 9). At first, the site was occupied by Maya who built structures in a local variation of the Puuc style. The "Chichen Maya" period was followed by a "Toltec-Maya" occupation, when structures and art exhibiting strong similarities with examples at Tula were built. For Tozzer—among many other scholars since Charnay (1887)—the explanation was invasion; the Toltec legendary hero Ce Acatl Topiltzin Quetzalcoatl came to Yucatan, established a new militaristic political order, and built a new version of Tula—albeit on a much grander scale (see Gillespie 2007 for an explanation of how this perspective developed).

By the late 1970s, many scholars came to challenge this scenario, noting that there was little evidence at Chichen Itza for distinct "Chichen Maya" and "Toltec-Maya" occupations (the Cehpech-Sotuta chronological debate, in part, is related to this issue; see also Lincoln 1986:152), and that dates for the site were too early and did not accord well with the legendary chronology of Quetzalcoatl of Tula (see Andrews 1979a:Table 1). Other versions of the invasion scenario proposed that it was not precisely Toltecs from Tula who came to Yucatan, but instead successive waves of "Mexicanized" Chontal-speaking Maya from the Gulf Coast called the Putun. Complex migration routes for Putun groups—including the Itza—have been proposed (Thompson 1970; Schele and Freidel 1990:497, 350; Schele and Mathews 1999). Problems of chronology and the literal accuracy of Aztec ethnohistorical documents can be resolved by appealing to different versions of the Putun model, but it, too, has come under close scrutiny. Although the books of *Chilam Balam* certainly discuss quite a lot of migration myths, it is uncertain that the Putun—as some kind of distinct ethnic group that included the Itza—existed outside of the mind of J. Eric S. Thompson (Kremer 1994:303). One wonders as well why the Itza language is so closely related to Yucatec rather than to Chontal.

A key aspect of the new paradigm was proposed by William M. Ringle, Tomás Gallareta Negrón, and George J. Bey (1998). They argue that the most visible manifestations of internationalism during the late Terminal Classic and Early Postclassic periods were caused by the participation of Uxmal and Chichen Itza in a world religion focused on the feathered serpent deity called Kukulcan[4] by the Maya and Quetzalcoatl by Nahuatl speakers. They suggest that Chichen Itza and—for a brief period in the early tenth century—Uxmal were cathedral cities in a web of centers dedicated to the cult of the Feathered Serpent, which may have had its ultimate origin at Early Classic Teotihuacan (Ringle 2004). Other important nodes in the network included the great city of Cholula (McCafferty 2007), Xochicalco, El Tajin, and—of course—Tula.

For Ringle (Chapter 8), the term "Toltec" can be applied to all participants in this religion regardless of the polity to which they belonged, and all cities involved in the network are "Tollans." Thus, the cult of Quetzalcoatl/Kukulcan was an international phenomenon that transcended political boundaries. Similarities between Chichen Itza and Tula developed because of the international character of the religion. Both cities, as well as others in the network, were important pilgrimage centers, so for this reason art and architectural styles developed that were understandable—"readable"—by elite pilgrims who belonged to distinct cultures and who spoke different languages. Nonetheless, the International style of each city is somewhat different, reflecting an eclectic mixture of local and pan-Mesoamerican ideas. Trade, of course, follows the *hajj*. The presence at Chichen Itza of significant quantities of imported central Mexican obsidian and smaller amounts of turquoise from even farther away reflects participation in this international network. It is likely, in fact, that increased trade acted as a stimulus for further integration within the pan-Mesoamerican cult.

According to Ringle (2004, 2009), a key aspect of the cult of Quetzalcoatl/Kukulcan was political investiture, especially in conjunction with military roles. Important public architecture at cities such as Chichen Itza and Uxmal were theaters/stages where such investiture ceremonies took place. Although it is somewhat unlikely that the ballgame was ever played in the Great Ballcourt of Chichen Itza, it is highly probable that it saw the coronation of rulers from various communities. The importance of Chichen Itza as the regional center of this elite investiture cult might help explain why it continued to be occupied long after the collapse of Uxmal and many other sites in the northern lowlands. In fact, it seems as though the great city of Chichen Itza, like Monte Alban in the Valley of Oaxaca, was never totally abandoned. During the Early Postclassic, leaders of demographically reduced and fractured polities still depended on the authority of Chichen Itza as the sole regional center that could legitimize rulership. Such small, client polities, many of which were located near the coast, may have supported Chichen Itza. What is now clear is that during the chaos of the Early Postclassic period, Chichen Itza was not the capital of a peninsular empire. Instead, its ritual suzerainty far exceeded the bounds of its political sovereignty. Its survival—for a time—might be attributable to this fact.

Political Structure of Chichen Itza

Another important focus of research in the new paradigm is the political structure of Chichen Itza. Archaeologists, art historians, and epigraphers have long been perplexed by the apparent lack of royal graves, acropolis-type palaces,[5] images showing divine kings, and historical king lists at Chichen Itza. Such evidence is not common in the northern Maya lowlands, although there are important dynastic monuments at Coba, Edzna, and—to a somewhat limited degree—Ek Balam, Chichen Itza, Uxmal, Xcalumkin, Dzibilchaltun, Sayil, and a few other sites.

Most texts from Chichen Itza date to a very narrow time period during the reign of K'ak'upakal, who "stands out as the most prominent figure, accompanied by his brother K'inil Kopol, who oversaw many building activities. And yet, K'inil Kopol certainly was of lesser rank..." (Grube and Krochock 2007:229). Before the 1990s, no clear royal tomb had been excavated in the northern lowlands; now we have examples from Yaxuna, Oxkintok, and—most spectacularly—Ek Balam. But none have been excavated so far at Chichen Itza, with the possible exception of the looted "High Priest's Grave" in the Osario pyramid (Thompson and Thompson 1938).

The apparent lack of the "cult of kings" so common in the southern and central lowlands has led some to suggest that the nature of rulership in the north, and especially at Chichen Itza, was significantly different. David Stuart wrote an important and widely circulated letter in 1988 in which he proposed that the glyph *yitaaj*, used to link two individuals in Classic Maya texts, should be glossed as "sibling of." He further suggested that references in Landa (Tozzer 1941) to Chichen Itza being founded by three brothers might imply a system of joint rulership, known in later periods as *multepal*, at that site. This idea was quite popular during the 1990s (Krochock and Freidel 1994; Schele and Freidel 1990), but became discredited when the provisional gloss of *yitaaj* fell through (Grube and Krochock 2007:229). Some scholars have argued that Chichen Itza had a strongly centralized government headed by a divine king or a pair of kings (Cobos Palma 2007; Lincoln 1990). Ringle (2004), however, envisions distinct and dual estates of secular/military and priestly roles, each advised by councils. We still have a long way to go before we arrive at a consensus regarding how Chichen Itza was ruled.

The End of the Early Postclassic Period

The last century of the Early Postclassic, ca. A.D. 1100–1200, was a dark age. The demographic collapse that began during the Terminal Classic period continued, and, after the collapse of Chichen Itza, very few significant settlements were located in inland regions. Just as the ceramic complexes of the Terminal Classic period have been subject to chronological re-evaluation, so too has Smith's (1971) succeeding Hocaba ceramic complex.

According to Smith, the Hocaba "phase" dates to A.D. 1200–1250/1300, and marks the transition into the Late Postclassic of Mayapan. It now seems more likely that Hocaba pottery dates to the period A.D. 1000/1050–1200/1250, and it should be stressed that—compared to pottery dating to earlier and later periods in the northern lowlands—it is uncommon to rare, supporting the notion that the eleventh and twelfth centuries saw a population nadir in the north.

Many of the ceramic groups that Smith (1971) included in the Hocaba "complex" are also present in and diagnostic of the ensuing, and better understood, Tases complex. For this reason, Ringle et al. (1998:189-191) argue that Hocaba does not constitute a complete ceramic complex. Instead at Mayapan, Hocaba-Tases represents early settlement before the full Tases complex. Hocaba pottery such as Peto Cream ware appears at Chichen Itza, in Balankanche Cave, and at Isla Cerritos in contexts that also have Sotuta pottery, implying that the Hocaba "complex" also overlaps with Sotuta (Andrews 1970; Andrews and Andrews 1980; Andrews et al. 1988; Gallareta Negrón et al. 1989; Brainerd 1958:57; Ringle et al. 1998). At Chichen Itza, Hocaba pottery is found mixed with Sotuta material in exclusively post-construction contexts. That is, it dates to the eleventh and perhaps early twelfth century A.D. at that city, and marks its decline.

Discoveries of small quantities of Terminal Classic pottery at Mayapan, but no standing architecture, imply that a small settlement existed there before the collapse of Chichen Itza (Peraza Lope et al. 2006:153-155; Pollock et al. 1962:6, 92). The earliest known sub-Castillo temple at Mayapan dates to some time during the eleventh or twelfth centuries (Peraza Lope et al. 2006). This, along with the presence of Sotuta-Hocaba pottery in post-construction contexts at Chichen Itza and of Hocaba-Tases and even trace amounts of Sotuta and Cehpech pottery at Mayapan, links the chronologies of the two cities together. Although there is no single period when both can be said to have been large cities, Chichen Itza and Mayapan were partially contemporary. Mayapan may be said to have "profited in the aftermath of Chichen Itza, rising in the twelfth century, following Chichen's fall, and peaking from the thirteenth to early fifteenth centuries A.D." (Peraza Lope et al. 2006:172).

Late Postclassic Period (A.D. 1200–1540)

With the foundation of Mayapan, ethnohistorical accounts begin to provide historical as well as anthropological insights into the prehispanic northern Maya lowlands. Nonetheless, the chronologies of documents such as the books of *Chilam Balam* seem "telescoped," sometimes flattening events from different periods into one, and at other times seeming to imply that the life of particular individuals extended over vast periods of time (Chapter 10). Despite many attempts to align *k'atun* chronologies with western concepts of time (e.g., Edmonson 1982, 1986; Milbrath and Peraza Lope 2003; Roys 1967), such documents reflect Maya conceptions about how time ought to be cyclically organized. For this reason, we probably not should take literally the dates given for different events, or to make emic chronology fit archaeological

data. Even more importantly, we should not try to force our growing archaeological knowledge of Mayapan to fit into *k'atun* cycles.

Recent archaeological projects at Mayapan have contributed greatly to our understanding of this city (Chapter 12; Brown 1999, 2005, 2006; Masson and Peraza Lope 2005; Milbrath and Peraza Lope 2003; Peraza Lope et al. 2001, 2006). Although there is evidence for a limited Terminal Classic occupation, the power of Mayapan began to coalesce during the twelfth century, near the end of the Early Postclassic period. The books of *Chilam Balam* discuss attacks against Chichen Itza, and it is conceivable that Mayapan may have played some role in the final destruction of what must have been already a very depleted place (Chapter 10). Perhaps such people from Mayapan belonged to the Xiu group, which the *Chilam Balam of Mani* states founded the city. Alternatively, the founders of Mayapan may have been Cocom elite coming from Chichen Itza (Ringle et al. 1998:190-191, 225).

The great period of Mayapan does not seem to have begun much before about A.D. 1200 (Peraza Lope et al. 2006), and ended—according to both chronicles and radiocarbon dates—about A.D. 1440. Mayapan, therefore, represents a "peak" between the twin valleys of the twelfth century and the last century before the Spanish conquest of Yucatan (Chapter 4). Two periods of major construction seem to have occurred at Mayapan during the thirteenth and fourteenth centuries (Peraza Lope et al. 2006). It is tempting to link one of these surges in construction activity to activities by the Cocoms and the other to the Xius.

Structures Q-87a and Q-88a, two halls in the Round Temple group located in the site center, were burned sometime in the fourteenth century, as was Str. Y-45a, an outlying elite house (Peraza Lope et al. 2006:165, 173). Also, two mass graves or "bone beds" were excavated at Structure Q-79/79a and in the Itzmal Chen group. These date to the thirteenth or fourteenth centuries (Peraza Lope et al. 2006:162, 173, Figure 7). Thus, it might very well be that Mayapan saw internal conflict during its apogee, perhaps even between the two groups—the Cocoms and Xius—that historical chronicles say dominated the politics of the city.

Mayapan, of course, is not the only Late Postclassic site in the northern lowlands. But it certainly was the largest inland site during most of that period. Demographic trends that began in the Terminal Classic period—with many of the largest settlements located on the coast—continued in the Late Postclassic period. One area with particularly dense settlement is the eastern coast of central Quintana Roo. There, Late Postclassic sites are so closely packed together that they form an almost continuous—but very narrow—strip (Andrews 1985, 1986). In recent decades, INAH investigators and Anthony Andrews have conducted important research at sites such as El Meco (Andrews and Robles Castellanos 1986), Xelha (Peraza Lope and Toscano 1983), San Gervasio (Peraza Lope 1993, 2005; Sierra Sosa 1994; Sierra Sosa and Robles Castellanos 1988), among many others (for an account of this work, see Con Uribe 2005).

Long-Distance Interaction during the Late Postclassic Period

Mayapan maintained or renewed economic ties with central Mexico. Many noble and affluent commoner families seem to have had access to imported goods, but there is no unambiguous evidence of a resident barrio of foreigners at the site (Masson and Peraza Lope 2010). The most visible evidence of long-distance interaction is seen in the International style (or "Mixteca-Puebla" style) murals found at the site and also painted at other important Late Postclassic communities in the northern lowlands such as Ruinas de San Angel, Coba, Tulum-Tancah, Xelha, and Sant Rita Corozal (Boone and Smith 2003; Gallareta Negrón and Taube 2005; Miller 1982, 1986; Taube 2010).

A curious shift between the Terminal Classic/Early Postclassic and Late Postclassic periods is that very little obsidian from central Mexican sources reached Yucatan during the Late Postclassic period. At Mayapan itself, virtually all obsidian comes from the Ixtepeque, Guatemala source, with small quantities also brought in from El Chayal. In contrast, only trace quantities of Mexican obsidian are found (Escamilla Ojeda 2004). This shift from a reliance on El Chayal and Mexican obsidian to material from Ixtepeque typifies most of the Maya lowlands during this time period. Late Postclassic contexts at sites such as Xelha and San Gervasio on the east coast, and in the Champoton region on the west coast, are dominated by obsidian from the Ixtepeque source (Braswell and Glascock 2007; unpublished data from the Champoton Regional Settlement Survey collected by Braswell, 2009), although earlier contexts from these same sites and regions exhibit different procurement patterns.

Two of the most fascinating aspects concerning obsidian at Mayapan are its abundance and distribution. The quantity of obsidian recovered by the *Proyecto Mayapán*, directed by Carlos Peraza Lope and studied by Bárbara Escamilla Ojeda (2004)—more than 14,000 pieces—is greater than that recovered by all other archaeological projects in Yucatan during the last 20 years *combined*. Excavations conducted by that project at Mayapan focused on the epicenter of the site, but work elsewhere suggests that commoner households had very limited access to obsidian (Brown 1999). I have argued that this distribution pattern implies that, during the Late Postclassic period, obsidian was not distributed at Mayapan through a competitive market (Braswell 2010). Instead, its availability is more consistent with an administered market or, even more likely, polyadic redistribution. Nonetheless, we need more quantified data from outlying structures to be sure of this conclusion.

Late Postclassic "Decadence"

Since the 1950s, when the Carnegie Institute of Washington conducted research at Mayapan, its art and architecture have all too frequently been labeled as "decadent," a pejorative also applied to Late Postclassic sites on the east coast of Quintana Roo (Chapter 12; Freidel and Sabloff 1984). The term was originally adopted because of perceived parallels between the artifice of late nineteenth-century European art and literature of the Decadent movement and Postclassic Maya architecture, pottery, and painting. Various reasons have been proposed for this "decadence" (e.g., Rathje 1975), and others have tried to dismiss the apparent poverty of the city. Clifford Brown et al. (Chapter 12), however, contend that Mayapan *was* impoverished. Their perspective, argued from measures of both absolute wealth and its distribution, suggests that increased trade may not always create prosperity and can skew distributions of what wealth is generated. This message should resonate during the NAFTA era.

Colonial Period and Beyond (A.D. 1540–Present)

The Maya of course, did not disappear with the Spanish conquest. Since the publication of Anthony Andrews' (1981) article "Historical Archaeology in Yucatan: A Preliminary Framework," colonial, independence, and Caste War archaeology have flourished in the northern Maya lowlands. In our volume, Rani Alexander (Chapter 13) considers both the Spanish conquest and the Caste War as yet two more examples of "collapses" that were experienced by the Maya. Rather than employing Joyce Marcus' Dynamic Model (Chapter 4), Alexander interprets collapse and reorganization in terms of resilience theory and Panarchy (Holling and Gunderson 2002; Redman 2005).

Alexander stresses three points. First, the collapse of the tenth through twelfth centuries was by no means the most severe demographic contraction experienced by the Maya of the northern lowlands. Those of the conquest and Caste War were arguably worse. Second, the effects of these historical collapses were not uniform, but tended to affect smaller settlements more than larger ones. Large communities with a sense of place or historical memory tended not to be completely abandoned. Third, different groups—including the Xiu and Cocom—adopted very different strategies to maintain autonomy. In both the conquest and the Caste War, the western Xiu accommodated to new political and economic conditions, while the eastern Cocom rose up in armed resistance.

Alexander's analysis suggests that the Maya of the northern lowlands today are in a period of conservation before yet another episode of release or collapse. State-sponsored resource extraction, the appropriation of community land for tourism and other purposes, the end of the *ejido* system, and a way of life that promotes migration to large cities rather than traditional agricultural practices are accelerating. We do not know yet how the Maya of our new century will react to these changes, but Alexander argues that they may come up with new strategies to improve resilience.

E. Wyllys Andrews V: An Archaeological Appreciation

Will Andrews' contributions have been central to the development of this new paradigm for the archaeology of the northern Maya lowlands. His ceramic analyses have identified the two earliest complexes known in the northern lowlands: Ek and Early Nabanche. He has also identified Early Nabanche pottery in the Olmec region and Middle Formative jades in the northern lowlands, suggestig that interaction between the Maya and the Olmec was bidirectional. Andrews' fieldwork at Komchen (conducted, of course, with his student Bill Ringle) provided the first clear picture of village life during the Middle Preclassic period in northwest Yucatan. His studies of architecture led to important conclusions concerning the distribution of hybrid Teotihuacan-Maya architectural traits in the northern Maya lowlands, as well as the spread of Puuc-style architecture beyond that region during the Late and Terminal Classic period. His interests in the Classic Maya Collapse, the chronologies of Chichen Itza and the Puuc region, and evidence for an extended period of drought have allowed us to consider the decline of many Terminal Classic cities of the northern lowlands as an extension of similar processes to the south, and afforded us an important understanding of the transition into the Postclassic period.

Will's many contributions can be seen not only in his publications, but also in the many archaeologists he has inspired. These include at least three "professional generations" of scholars. The first contains the many friends and colleagues that he has made over the years, including Joyce Marcus, who contributed two chapters to our volume. The second professional generation is comprised of the many graduate students Will taught at Tulane. Among these are Bill Ringle, David Anderson, Walter Witschey, Cliff Brown, Gabrielle Vail, Christine Hernández, Rani Alexander, and me. The impact of a third professional generation, who consider Will to be their "grandadvisor," is also beginning to be felt. In our collection, this group is represented by Nancy Peniche, Lauren Hahn, April Watson, and Ashley Gravlin-Beman. Even wider still is the vast network of archaeologists in the northern lowlands who have never been Will's students and who have not worked with him in the field, but who, nonetheless, are directly and indirectly inspired by his work. Among these scholars are Jerry Ek

and Scott Hutson. But of course, all four of these groups contain many, many more people—in the United States, Mexico, Canada, Honduras, Spain, Germany, and other countries—who could easily fill a shelf with volumes in Will's honor.

Will, we dedicate this book to you in thanks for being our teacher, our friend, and an inspiration for the work we do. We hope you find merit in our work that depends so much on your solid foundation.

Acknowledgments

This introduction obviously borrows quite liberally the idea of a "new paradigm" from Robles Castellanos' (n.d.) summary of advances that he and others have made to our understanding of the Middle Preclassic. It owes even more to Bey's (2006) masterful précis in *Lifeways in the Northern Maya Lowlands*. Where that chapter leaves off, the end of the Early Classic, I have had to forge ahead without George's expert guidance. To do this, I have relied on numerous colleagues and experts including the authors of the chapters in our volume, Robert Sharer, Dorie Reents-Budet, Traci Ardren, Ron Bishop, and—more than anyone else—Will Andrews himself. For this reason, I happily attribute the many factual and interpretive errors in this chapter to Will. I also gratefully acknowledge the participation in our original session of Aline Magnoni, Tomás Gallareta Negrón, Anthony Andrews, and Jeremy Sabloff, who, for various reasons, could not contribute to this volume. A special thanks is due to an anonymous reviewer who carefully read an earlier version of our manuscript and made very important and helpful comments. This work has benefitted greatly from these comments. Finally, I wish to thank all the contributors for their patience with my editing and many questions.

Notes

1. Cunil pottery from western Belize is now being called "Early Formative" or "Early Preclassic" because it has design motifs that elsewhere date to that period. Nonetheless, radiocarbon dates place Cunil at the transition between the Early and Middle Preclassic periods. It may be that Cunil pottery eventually will be pushed back in time or that a predecessor dating only to the Early Preclassic/Formative will be found in the Maya lowlands.

2. Ceramicists working in the northern Maya lowlands and western Belize—among other areas—have found it somewhat difficult to distinguish between pottery dating to roughly A.D. 100–250 and A.D. 250–400/430. This is because important Late Preclassic types, including members of the Sierra group, persisted in these regions long after the Early Classic Tzakol sphere emerged in the central Peten. Juan Pedro Laporte (1995) has used the expression "Peripheral Chicanel" to describe this phenomenon in the southeast Peten. The situation is further complicated by so-called "Protoclassic" modes (Brady et al. 1998). Thus, Glover and Stanton (2010), for example, fold both Laporte's "Peripheral Chicanel" and the "Protoclassic" into a period they call the Terminal Preclassic, dating from 75 B.C. to A.D. 400. The decline of the Yalahau region is therefore said to take place at the end of the Terminal Preclassic period, which is chronologically equivalent to the first half of the Early Classic period at Tikal, that is, ca. A.D. 250–400.

3. Moving far into the realm of speculation, I wonder if Altar L at Copan might possibly depict Ruler 16 engaging in a legitimization rite with U K'it Kan Le'k Tok' as ruler of Ek Balam. The figure on the right side of the altar sits on the name U K'it Tok'. The calendar round date of 3 Chicchan 3 Uo is generally thought to correspond with 8 February, A.D. 822 (a time when the king of Copan was likely dead), but it could also correspond to 21 February, A.D. 770. The accession of U K'it Kan Le'k Tok' as the dynastic founder of Ek Balam is not precisely known, but two candidates for this event are 9 April and 26 May A.D. 770 (Lacadena García-Gallo 2002; see Chapter 14). I admit that there is much to argue

against this interpretation, but it is not inconceivable that the time between February and April A.D. 770 represents the movement of the Ek Balam lord from Copan to the northern city.

4. An alternate spelling for this name is K'uk'ulkan. The proper way to spell Mayan words using Roman letters is a matter of continuing discussion. Guatemalan Mayan languages are now properly written according to a single official orthography adopted by Maya leaders and passed into law by the Guatemalan congress. Nonetheless, Yucatec (or Yukatek) Mayan of the northern lowlands has a much longer and continuous history as a written language than do most of the Mayan languages of Guatemala, and it has its own well-established orthography. Given that the use of either orthography implies a political decision, I have opted in this volume to let the authors themselves choose which set of conventions to employ. Like many, I tend to prefer the "new" orthography for words and names translated from Classic Maya texts, but employ the "traditional" orthography for the names of well-known sites and historical figures in the northern Maya lowlands.

5. Chichen Itza lacks acropolis-style palaces, but has an over abundance of palace structures built in other styles. The Monjas complex and Akab' Tz'ib', south of the Great Platform, are palaces. So too are the Initial Series Group (Osorio León 2004, 2005; Schmidt 2007) and the immense Bovedas Group southeast of the Great Platform.

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